

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A high-density optical disc, wherein data is encrypted using one of synchronous data, address unit number information, and disc radius information recorded on the high-density optical disc, and the encrypted data is recorded in the data recording area according to a discontinuous recording format.

2. (Canceled)

3. (Currently Amended) The high-density optical disc as set forth in claim 1[[2]], wherein the high density optical disc is a Blu-ray disc-read only memory (BD-ROM), and the synchronous data recorded on the BD-ROM is different from that recorded on a high-density rewritable optical disc which is a Blu-ray disc rewritable (BD-RE).

4. (Canceled)

5. (Currently Amended) The high-density optical disc as set forth in claim 1[[4]], wherein the high-density optical disc is a Blu-ray disc-read only memory (BD-ROM), and the address unit number information recorded on the BD-ROM is different from that recorded on a[[the]] high-density rewritable optical disc which is a Blu-ray disc rewritable (BD-RE).

6.(Original) The high-density optical disc as set forth in claim 5, wherein the address unit number information is produced by adding a specified value to an address unit number recorded on the high-density rewritable optical disc or subtracting the specified value from the address unit number recorded on the high-density rewritable optical disc.

7. (Canceled)

8. (Original) The high-density optical disc as set forth in claim 1, wherein an address unit of the data recording area in which the data is recorded, contains disc radius information indicating a distance between the disc's inner periphery and a corresponding position.

9. (Canceled)

10. (Currently Amended) A method for encrypting data and recording the encrypted data on a high-density optical disc, comprising ~~the steps of:~~

(a) encrypting data ~~on the basis of~~ using one of synchronous data, address unit number information, and disc radius information recorded on the high-density optical disc;

and

(b) recording the encrypted data in the data recording area according to a discontinuous recording format.

11. (Original) The method as set forth in claim 10, wherein the step (a) is carried out by encrypting the data on the basis of the synchronous data recorded in the data recording area immediately before the data is recorded.

12. (Canceled)

13. (Currently Amended) The method as set forth in claim 10[[12]], wherein the step (a) is

carried out by encrypting the data using all or part of the address unit number information.

14. (Canceled)

15. (Currently Amended) The method as set forth in claim 10[[14]], wherein the disc radius information indicates a distance between the disc's inner periphery and a corresponding position, and is recorded in an address unit.

16. (Currently Amended) The method as set forth in claim 10, wherein the high density optical disc is a Blu-Ray disc-read only memory (BD-ROM), wherein the step (b) is carried out by recording the encrypted data on the high density optical disc[[in]] according to the discontinuous recording format corresponding to a high-density rewritable optical disc which is a Blu-ray disc rewritable (BD-RE).

17. (Currently Amended) A method for reproducing encrypted data recorded on a high-density optical disc, comprising ~~the steps of~~:

(a) searching for and reading one of synchronous data, address unit number information, and disc radius information recorded on the high-density optical disc;

(b) decrypting encrypted data ~~on the basis of~~ using a corresponding one of the read synchronous data, the address unit number information, and the disc radius information used to encrypt the data; and

(c) decoding the decrypted data to original signal, and reproducing the original signal.

18. (Currently Amended) The method as set forth in claim 17, wherein the step (a) is

carried out by ~~encrypting the data on the basis of~~ searching for and reading the synchronous data recorded in a data recording area immediately before the data is recorded.

19. (Currently Amended) The method as set forth in claim 17, wherein the step (b) is carried out by decrypting the encrypted data, recorded after the synchronous data has been recorded in ~~[[the]]~~a data recording area, using a decryption method corresponding to a predetermined encryption method on the basis of the read synchronous data.

20. (Canceled)

21. (Currently Amended) The method as set forth in claim 17~~[[20]]~~, wherein the step (b) is carried out by decrypting the encrypted data using a decryption method corresponding to a predetermined encryption method on the basis of all or part of the read address unit number information.

22. (Canceled)

23. (Currently Amended) The method as set forth in claim 17~~[[22]]~~, wherein the step (b) is carried out by decrypting the encrypted data using a decryption method corresponding to a predetermined encryption method on the basis of the read disc radius information.

24. (New) The high density optical disc as set forth in claim 1, wherein the data does not include the synchronous data, the address unit number information, and the disc radius information.

25. (New) The method as set forth in claim 10, wherein the data does not include the synchronous data, the address unit number information, and the disc radius information.

26. (New) The method as set forth in claim 17, wherein the encrypted data does not include the synchronous data, the address unit number information, and the disc radius information.

27. (New) The high density optical disc as set forth in claim 1, wherein the data is audio/video data.